

## CLAIMS

What is claimed is:

1. A modularized electronic device coupling architecture for the coupling of a first modularized electronic device with a second modularized electronic device wherein the first modularized electronic device is independently operable when dismounted from the second modularized electronic device;

the modularized electronic device coupling architecture comprising:

a rotation mechanism, which includes a fixed portion and a circular rotatable portion, wherein the fixed portion is fixed to the second modularized electronic device while the circular rotatable portion is rotatable on the fixed portion, and wherein the circular rotatable portion is formed with at least one engaging hole;

a pivot mechanism, which is fixed to one side of the tablet computer, and which includes at least one rotating shaft that allows the first modularized electronic device to be rotatable thereabout; and

at least one insert leg, which has a first end and a second end, wherein the first end is fixedly linked to the first end of the rotating shaft on the pivot mechanism, while the second end is used for insertion into the engaging hole in the circular rotatable portion on the rotation mechanism.

2. The modularized electronic device coupling architecture of claim 1, wherein the first modularized electronic device is a tablet computer, while the second modularized electronic device is a keyboard/touchpad base.

3. The modularized electronic device coupling architecture of claim 1, wherein the first modularized electronic device is a tablet computer, while the second modularized electronic device is a notebook base unit.

4. The modularized electronic device coupling architecture of claim 1, wherein the first modularized electronic device is a liquid crystal display unit, while the second modularized electronic device is a notebook base unit.

5. The modularized electronic device coupling architecture of claim 1, further comprising:

a first-type connector, which is arranged on the circular rotatable portion of the rotation mechanism; and

a second-type connector, which is arranged beside the pivot mechanism, and which is coupled to the first-type connector when the insert leg is inserted in position in the engaging hole in the circular rotatable portion of the rotation mechanism to thereby establish a data communication link between the first modularized electronic device and the second modularized electronic device.

6. The modularized electronic device coupling architecture of claim 5, wherein the first-type connector is hot pluggable to the second-type connector.

7. The modularized electronic device coupling architecture of claim 5, wherein the first-type connector and the second-type connector are USB (Universal Serial Bus) compliant connectors.

8. The modularized electronic device coupling architecture of claim 1, further comprising:

an engaging mechanism, which is capable of engaging the insert legs in position in the engaging holes in the circular rotatable portion of the rotation mechanism.

9. The modularized electronic device coupling architecture of claim 8, wherein the engaging mechanism includes:

5 an elastic locking member, which is arranged on the second end of each of the insert legs, and which is capable of being positioned on the inside of the insert leg when subjected to an external force and positioned on the outside of the insert leg when the external force is removed; and

10 a locking hole structure, which is formed in the inner wall of the engaging hole in the circular rotatable portion of the rotation mechanism, and which is capable of locking the insert leg securely in position when the second end of the insert leg is inserted in position in the engaging hole.

10. A modularized electronic device coupling architecture for the coupling of a first modularized electronic device with a second modularized electronic device wherein the  
15 first modularized electronic device is independently operable when dismounted from the second modularized electronic device;

the modularized electronic device coupling architecture comprising:

a rotation mechanism, which includes a fixed portion and a circular rotatable portion, wherein the fixed portion is fixed to the second modularized electronic device  
20 while the circular rotatable portion is rotatable on the fixed portion, and wherein the circular rotatable portion is formed with at least one engaging hole;

a pivot mechanism, which is fixed to one side of the tablet computer, and which includes at least one rotating shaft that allows the first modularized electronic device to be rotatable thereabout;

at least one insert leg, which has a first end and a second end, wherein the first end is fixedly linked to the first end of the rotating shaft on the pivot mechanism, while the second end is used for insertion into the engaging hole in the circular rotatable portion on the rotation mechanism;

a first-type connector, which is arranged on the circular rotatable portion of the rotation mechanism; and

a second-type connector, which is arranged beside the pivot mechanism, and which is coupled to the first-type connector when the insert leg is inserted in position in the engaging hole in the circular rotatable portion of the rotation mechanism to thereby establish a data communication link between the first modularized electronic device and the second modularized electronic device.

11. The modularized electronic device coupling architecture of claim 10, wherein the first modularized electronic device is a tablet computer, while the second modularized electronic device is a keyboard/touchpad base.

12. The modularized electronic device coupling architecture of claim 10, wherein the first modularized electronic device is a tablet computer, while the second modularized electronic device is a notebook base unit.

13. The modularized electronic device coupling architecture of claim 10, wherein the first modularized electronic device is a liquid crystal display unit, while the second modularized electronic device is a notebook base unit.

14. The modularized electronic device coupling architecture of claim 10, wherein the first-type connector and the second-type connector are USB (Universal Serial Bus) compliant connectors.

15. The modularized electronic device coupling architecture of claim 10, further comprising:

an engaging mechanism, which is capable of engaging the insert legs in position in the engaging holes in the circular rotatable portion of the rotation mechanism.

16. The modularized electronic device coupling architecture of claim 10, wherein the engaging mechanism includes:

an elastic locking member, which is arranged on the second end of each of the insert legs, and which is capable of being positioned on the inside of the insert leg when subjected to an external force and positioned on the outside of the insert leg when the external force is removed; and

a locking hole structure, which is formed in the inner wall of the engaging hole in the circular rotatable portion of the rotation mechanism, and which is capable of locking the insert leg securely in position when the second end of the insert leg is inserted in position in the engaging hole.

17. A modularized electronic device coupling method for the coupling of a first modularized electronic device with a second modularized electronic device;

the modularized electronic device coupling method comprising:

providing a pivot mechanism and a rotation mechanism respectively on the first modularized electronic device and the second modularized electronic device;

engaging the pivot mechanism with the rotation mechanism so as to mechanically and electrically couple the first modularized electronic device with the second modularized electronic device; and

using the second modularized electronic device as a data input interface for the first modularized electronic device, wherein the first modularized electronic device is collapsible and rotatable on the second modularized electronic device, and is dismountable and hot-unpluggable from the second modularized electronic device to serve as an independent functional unit.

18. The modularized electronic device coupling method of claim 17, wherein the first modularized electronic device includes a CPU and associated hardware/software facilities that allow the first modularized electronic device to operate independently as a data input and processing unit.

19. The modularized electronic device coupling method of claim 18, wherein the hardware/software facilities are selected from the group comprising memory, hard disks, and operating systems.

20. The modularized electronic device coupling method of claim 17, wherein the first modularized electronic device is a tablet computer, while the second modularized electronic device is a keyboard/touchpad base.

21. The modularized electronic device coupling architecture of claim 17, wherein the first modularized electronic device is a tablet computer, while the second modularized electronic device is a notebook base unit.

22. The modularized electronic device coupling architecture of claim 17, wherein the first modularized electronic device is a liquid crystal display unit, while the second modularized electronic device is a notebook base unit.

23. The modularized electronic device coupling method of claim 17, wherein a first-type connector and a second-type connector respectively provided on the first modularized electronic device and the second modularized electronic device are used to electrically couple the first modularized electronic device to the second modularized electronic device.

24. The modularized electronic device coupling method of claim 17, wherein a first-type connector and the second-type connectors are USB (Universal Serial Bus) connectors.

25. The modularized electronic device coupling method of claim 17, wherein when the first modularized electronic device is detached from the second modularized electronic device, the first modularized electronic device is operable as an independent data input and processing unit.

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